

WHAT IS CLAIMED IS:

1 1. A method for processing a source document in a structured document format
2 including elements providing source content to render, wherein the source content comprises
3 code that is rasterized into output, comprising:
4 receiving the source document;
5 receiving a layout data structure providing formatting properties specifying a layout and
6 format of the content output;
7 processing the source document and the layout data structure to determine formatting
8 properties, including page divisions, for the content in the source document;
9 generating multiple page objects, wherein each page object includes source content and
10 formatting properties for one page; and
11 transmitting the page objects to a rasterizer to transform into renderable information
12 capable of being generated by an output device.

1 2. The method of claim 1, wherein the source document includes statements in a
2 first presentation language, further comprising:
3 transforming the source document and source content therein into a result document in a
4 second presentation language, wherein the result document includes the source content and the
5 formatting properties provided by the layout data structure, wherein the formatting properties
6 indicate page divisions of the content, and wherein the multiple page objects are generated from
7 the result document.

1 3. The method of claim 2, wherein the layout data structure comprises a separate
2 document from the source document.

1 4. The method of claim 2, wherein the first presentation language comprises the
2 Extensible Markup Language (XML) and wherein the second presentation language comprises
3 Extensible Stylesheet Language Formatting Objects (XSL-FO), and wherein the page layout
4 data structure comprises an XSL stylesheet.

1 5. The method of claim 2, wherein the page objects include formatting properties
2 in a third presentation language.

1 6. The method of claim 5, wherein the first presentation language comprises the
2 Extensible Markup Language (XML), wherein the second presentation language comprises
3 Extensible Stylesheet Language Formatting Objects (XSL-FO), wherein the third presentation
4 language comprises the Mixed Object Document Content Architecture (MO:DCA), and
5 wherein the layout data structure comprises an XSL stylesheet.

1 7. The method of claim 5, wherein the third presentation language comprises a
2 page description language.

1 8. The method of claim 2, wherein the page objects include content and formatting
2 properties in the second presentation language.

1 9. The method of claim 2, wherein the second presentation language comprises
2 Extensible Stylesheet Language Formatting Objects (XSL-FO).

1 10. The method of claim 1, wherein the page objects include content and formatting
2 properties in a device independent presentation language.

1 11. The method of claim 1, wherein the source content is in a page description
2 language.

1 12. The method of claim 1, wherein the source document and page objects include
2 the formatting properties in a same presentation language.

1 13. The method of claim 1, wherein the page object includes content and formatting
2 properties for one page.

1 14. The method of claim 1, wherein the source document does not indicate page
2 divisions for the content.

1 15. A system for processing a source document in a structured document format
2 including elements providing source content to render, wherein the source content comprises
3 code that is rasterized into output, comprising:
4 means for receiving the source document;
5 means for receiving a layout data structure providing formatting properties specifying a
6 layout and format of the content output;
7 means for processing the source document and the layout data structure to determine
8 formatting properties, including page divisions, for the content in the source document;
9 means for generating multiple page objects, wherein each page object includes source
10 content and formatting properties for one page; and
11 means for transmitting the page objects to a rasterizer to transform into renderable
12 information capable of being generated by an output device.

1 16. The system of claim 15, wherein the source document includes statements in a
2 first presentation language, further comprising:

3 means for transforming the source document and source content therein into a result
4 document in a second presentation language, wherein the result document includes the source
5 content and the formatting properties provided by the layout data structure, wherein the
6 formatting properties indicate page divisions of the content, and wherein the multiple page
7 objects are generated from the result document.

1 17. The system of claim 16, wherein the layout data structure comprises a separate
2 document from the source document.

1 18. The system of claim 15, wherein the first presentation language comprises the
2 Extensible Markup Language (XML) and wherein the second presentation language comprises
3 Extensible Stylesheet Language Formatting Objects (XSL-FO), and wherein the page layout
4 data structure comprises an XSL stylesheet.

1 19. The system of claim 15, wherein the page objects include formatting properties
2 in a third presentation language.

1 20. The system of claim 19, wherein the first presentation language comprises the
2 Extensible Markup Language (XML), wherein the second presentation language comprises
3 Extensible Stylesheet Language Formatting Objects (XSL-FO), wherein the third presentation
4 language comprises the Mixed Object Document Content Architecture (MO:DCA), and
5 wherein the layout data structure comprises an XSL stylesheet.

1 21. The system of claim 19, wherein the third presentation language comprises a
2 page description language.

1 22. The system of claim 16, wherein the page objects include content and
2 formatting properties in the second presentation language.

1 23. The system of claim 16, wherein the second presentation language comprises
2 Extensible Stylesheet Language Formatting Objects (XSL-FO).

1 25. The system of claim 15, wherein the page objects include content and
2 formatting properties in a device independent presentation language.

1 26. The system of claim 15, wherein the source content is in a page description
2 language.

1 27. The system of claim 15, wherein the source document and page objects include
2 the formatting properties in a same presentation language.

1 28. The system of claim 15, wherein the page object includes content and
2 formatting properties for one page.

1 29. The system of claim 15, wherein the source document does not indicate page
2 divisions for the content.

1 30. An article of manufacture for processing a source document in a structured
2 document format including elements providing source content to render, wherein the source

3 content comprises code that is rasterized into output, and wherein the article of manufacture
4 comprises code capable of causing a processor to perform:
5 receiving the source document;
6 receiving a layout data structure providing formatting properties specifying a layout and
7 format of the content output;
8 processing the source document and the layout data structure to determine formatting
9 properties, including page divisions, for the content in the source document;
10 generating multiple page objects, wherein each page object includes source content and
11 formatting properties for one page; and
12 transmitting the page objects to a rasterizer to transform into renderable information
13 capable of being generated by an output device.

1 31. The article of manufacture of claim 30, wherein the source document includes
2 statements in a first presentation language, and wherein the code is further capable of causing
3 the processor to perform:
4 transforming the source document and source content therein into a result document in a
5 second presentation language, wherein the result document includes the source content and the
6 formatting properties provided by the layout data structure, wherein the formatting properties
7 indicate page divisions of the content, and wherein the multiple page objects are generated from
8 the result document.

1 32. The article of manufacture of claim 31, wherein the layout data structure
2 comprises a separate document from the source document.

1 33. The article of manufacture of 31, wherein the first presentation language
2 comprises the Extensible Markup Language (XML) and wherein the second presentation

3 language comprises Extensible Stylesheet Language Formatting Objects (XSL-FO), and
4 wherein the page layout data structure comprises an XSL stylesheet.

1 34. The article of manufacture of 31, wherein the page objects include formatting
2 properties in a third presentation language.

1 35. The article of manufacture of 34, wherein the first presentation language
2 comprises the Extensible Markup Language (XML), wherein the second presentation language
3 comprises Extensible Stylesheet Language Formatting Objects (XSL-FO), wherein the third
4 presentation language comprises the Mixed Object Document Content Architecture
5 (MO:DCA), and wherein the layout data structure comprises an XSL stylesheet.

1 36. The article of manufacture of claim 34, wherein the third presentation language
2 comprises a page description language.

1 37. The article of manufacture of claim 31, wherein the page objects include
2 content and formatting properties in the second presentation language.

1 38. The article of manufacture of claim 31, wherein the second presentation
2 language comprises Extensible Stylesheet Language Formatting Objects (XSL-FO).

1 39. The article of manufacture of claim 31, wherein the page objects include
2 content and formatting properties in a device independent presentation language.

1 40. The article of manufacture of claim 30, wherein the source content is in a page
2 description language.

1 41. The article of manufacture of claim 30, wherein the source document and page
2 objects include the formatting properties in a same presentation language.

1 42. The article of manufacture of claim 30, wherein the page object includes
2 content and formatting properties for one page.

1 43. The article of manufacture of claim 30, wherein the source document does not
indicate page divisions for the content.